

Nuclear Division News



A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 7, No. 12/June 10, 1976

Dental Assistance Plan made effective June 1

A new Dental Expense Assistance Plan went into effect June 1 for all Nuclear Division employees. No enrollment is required by employees. Coverage started automatically last week.

A booklet has been mailed detailing types of expenses covered and amounts of coverage. The booklet describes only the highlights of the Plan, and does not attempt to cover all facets of the program. Meetings are being held throughout the Division to explain the Plan in more detail to employees.

Covered under the Plan are employees and their spouses and all eligible dependents (unmarried children up to age 19 — to 23 if wholly dependent).

The Plan leaves you completely free to choose your own dentist and the insurance company will, if you ask them to, mail benefit checks directly to your dentist.

Forms for dental assistance are available in the Benefit Plans office of each of the four Nuclear Division installations and will be available soon in most dentists' offices in the area of our installations.

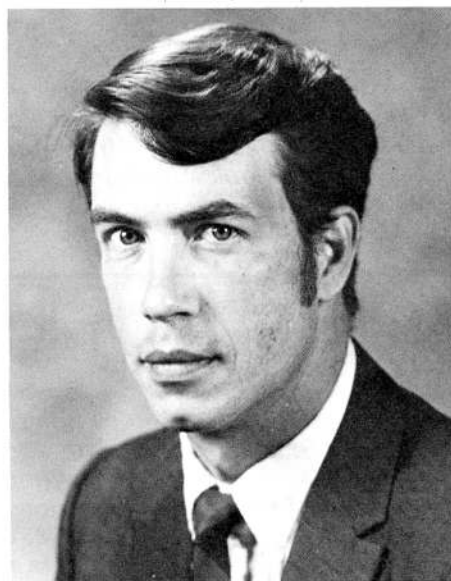
Bond drive shows new buyers



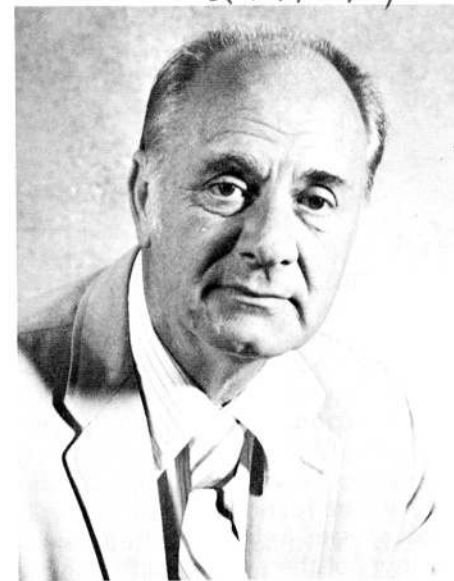
The current U.S. Savings Bond payroll deduction campaign shows an additional 1,073 Nuclear Division employees signed to purchase bonds, bringing the total of 10,613, or 62.4 percent!

The Y-12 Plant leads the field, with 3,601 employees, or 77.5 percent. The Paducah Gaseous Diffusion Plant places second with 1,487, or 72.3 percent, saving through payroll deductions. The Oak Ridge Gaseous Diffusion Plant shows 3,422 employees, or 64 percent; and Oak Ridge National Laboratory roles show 2,103, or 42.5 percent.

F. V. "Joe" Tilson, campaign chairman for the four plants, voiced optimism in the initial report. Final tabulations will be published in the next issue of *Nuclear Division News*.



William C. McClain



Alfred L. Boch

McClain, Boch named to Waste Isolation posts

William C. McClain has been named manager of technical projects for the Office of Waste Isolation, according to Clayton D. Zerby, OWI director.

In this new position, he will be responsible for all technical activities for OWI, including geology, technical support and data management.

McClain, who has been program director for the Geologic Disposal Evaluation Program (formerly the Salt Mine Repository Project), joined Union Carbide in 1963. He was previously engaged in research and development activities in radioactive waste disposal and related geological investigations, including the Project Salt Vault experiment in Kansas. He has also done work in

hydraulic fracturing of shales, seismology and rapid excavation.

For the past three years he has been concerned with surveying all rock types and geologic formation in the United States and evaluating their suitability as possible repositories for all types of radioactive wastes.

He received mining engineering degrees from the Colorado School of Mines and the University of Newcastle in Upon-Tyne, England. He is a native of Wichita, Kan.

McClain and his wife, the former Shirley McElhaney, live at 836 West Outer Drive, Oak Ridge.

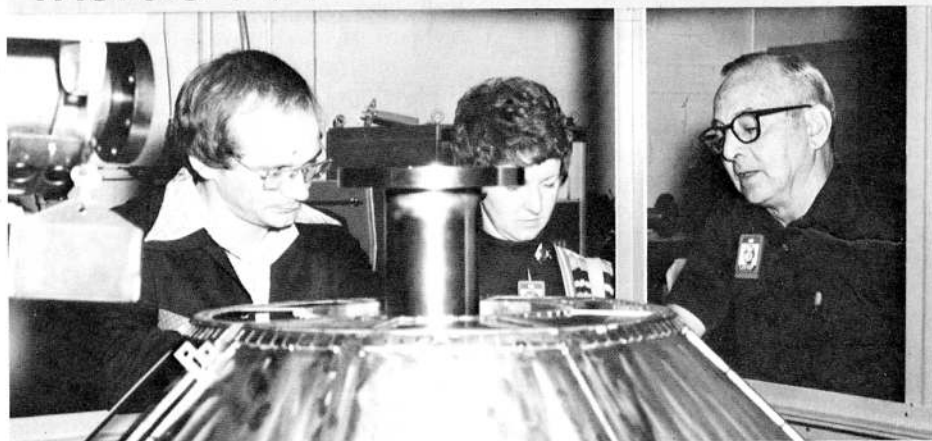
Alfred L. Boch, director of Capital Projects for Oak Ridge National Laboratory, has been appointed manager of facility projects for the Office of Waste Isolation. In his new capacity, he will be responsible for engineering activities for OWI and management of all waste pilot plant projects.

Boch, a native of Boston, received a degree in electrical engineering from Northwestern University. He has also done graduate work at the University of Tennessee.

He came to Oak Ridge in 1943 and worked in Y-12's electromagnetic separation plant, and has served in several administrative and technical positions at ORNL, including associate director of the Reactor Division and project director for both the High Flux Isotope Reactor and the Oak Ridge Electron Linear Accelerator.

Boch lives at 137 Westlook Circle, Oak Ridge. He has a son and a daughter.

inside . . .



Family Day - 1976

Oak Ridge National Laboratory hosted Family Day recently, as spouses and children were invited in to see various non-classified aspects of our work.

Pictures of the event are on page 4.

Other features

- Question Box page 2
- Shults named Analytical Chemistry head page 3
- OWI positions listed page 5
- Dr. Lincoln page 7

Secretaries prepare Thermonuclear procedures manual

Thermonuclear Division secretaries have assisted in the preparation of an administrative procedures manual for use in that division. The manual conforms to company procedures but is custom-made for use in the Thermonuclear Division.

The manual was prepared in loose-leaf format and consists of more than 100 pages divided into 13 sections. Described are such subjects as preparation of budget proposals, travel, conference rooms, library, accounting, time cards, employment, correspondence, consultants, reports and publications, entertainment, procurement and vehicles.

Richard Jernigan, administrator for the Thermonuclear Division, said the manual was needed because of the recent expansion of the organization and because a number of situations are peculiar to that Division.

Rose Wood, who is secretary to Division Director John Clarke, coordinated the preparation of the manual. She feels that the document is of special value to the newer members of the clerical staff.

The Thermonuclear Division presently has about 150 regular staff members in addition to some 100 other persons assigned to the division such as consultants, loanees, technicians and craftsmen.

Sellin named Chancellor's Research Scholar at UT

Ivan A. Sellin, a consultant with Oak Ridge National Laboratory's Physics Division who heads the University of Tennessee-ORNL Heavy Ion Atomic Physics Group, was one of three UT faculty members recently named the campus' first Chancellor's Research Scholars.

The Research Scholars award, set up to recognize faculty members who have achieved an outstanding record of research and scholarship, consists of a \$1,000 departmental allocation to be used for the recipient's research expenses.



PROCEDURES MANUAL ASSISTANCE — Richard Jernigan, center, administrator for the Thermonuclear Division, had lots of able assistance in the preparation of a procedures manual for the division. Standing, from left are Annabel Legg, Cathy Nook and Donna Slagle. Seated are Gail Culton, Caila Cox, Lillian Bean, Emily Ruckart, Jernigan, Rose Wood, Gladys Warren, Bettye Pope, Bonnie Straine and Sandy Adkins.

question box

If you have questions on company policy, write the Editor, Nuclear Division News (or telephone your question in, either to the Editor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.

Y-12 table decorations?

QUESTION: Who produced the tent-shaped table decorations in the Y-12 Cafeteria which give definitions of subversion, sabotage and espionage, state the aims of communism and instruct us to have a "personal dedication to national policy?" I find this kind of thing offensive, even insulting.

If you have to cram this down our throats with our lunch there's something wrong. Next we'll have to listen to speeches while we eat, to make certain we are being indoctrinated 100 percent of our eight-hour day.

ANSWER: The messages you refer to were produced and distributed by the Y-12 Security Department in connection with the Plant's continuing security awareness

program. The definitions are commonly accepted, and the quote from Lenin is widely known.

The cafeteria serves as a meeting place for employees and has been used regularly to disseminate security and safety messages. We can find no fault with this practice and regret that you found the recent security reminders objectionable.

There are no plans to have speeches during lunch time.

Knowing job classification

QUESTION: It has always been my understanding that Company policy entitles me to know my job classification. Yet my supervisor has refused to provide me this information on three or four occasions recently. Please explain just what the Company policy is in this matter. If it is Company policy that I know my current classification, what recourse do I have?

ANSWER: You are certainly entitled to know your job classification. If you continue to have trouble obtaining it, check with your division director or superintendent or with your installation salary administration office. If making these contacts presents a problem, call J. A. Young, Nuclear Division News editor, ext. 3-7100, identify yourself and steps will be taken to supply you with this information.

Pension plan and IRS

QUESTION: In a recent issue of Nuclear Division News it was indicated that an employee must have 10 years of service before being eligible for a pension. However, an employee with less than 10 years is not eligible to take advantage of the new Federal law involving private pensions. It seems to me that the Carbide ruling is not within the spirit of the law, but follows the letter of the law. Is this not discriminating against employees with less than 10 years of service?

ANSWER: The article "Individual Retirement Accounts — 'IRA' programs can be costly" appeared in the March 18, 1976 issue of Nuclear Division News. The purpose of the

article was to provide a general guideline to help employees understand the tax consequences of participating in an IRA arrangement.

One of the requirements for an IRA program is that an employee cannot be covered by any "qualified plan." It is the opinion of the Law Department that the Pension Plan is a "qualified plan" and that all employees are considered by the law as being covered by the Pension Plan without regard to age and/or service. This is not a ruling by Union Carbide. The Internal Revenue Service would be the organization making a ruling in the event that one of their agents contested an employee's IRA deduction.

If advice or assistance is needed, employees are urged to CONSULT A QUALIFIED TAX ADVISOR. The Company cannot give tax advice in any situation.

wanted



Y-12

VAN POOL RIDERS from Cedar Bluff Road, Walker Springs area to any portal, straight day. Steve Shipley, plant phone 3-7776, home phone Knoxville 693-0379.

ORNL

DRIVER for 5-person carpool from vicinity of Landmark, Stonebrook, Canby Hills and Gulf Park subdivisions via Middlebrook Pike to East Portal, 8 or 8:15 shift. Effective July 1. J. W. Sims, plant phone 3-1486, home phone 693-8829.

CAR POOL MEMBERS from Cumberland Estates, Knoxville, to any portal, 8 or 8:15 shift. W. S. Groenier, 3-6411.

ORGDP

FOURTH wanted for car pool from West Knoxville to Portal 2 or 4, straight day. Alex, extension 3-3244; Dale, 3-9477; or Nick, 3-3053.



VAN POOLS — Even though the computer read-outs on carpooling are not out yet from the University of Tennessee, van pools are already appearing in the plants, as seen from a Y-12 parking lot recently. Lists should be available and in the hands of the hundreds who showed interest sometime in June, according to the three Oak Ridge coordinators.



BRIDGE TO BE REBUILT — One of the bridges on the Oak Ridge Turnpike scheduled to be rebuilt is seen above, looking west. The bridge is near the intersection with Jefferson, and the other bridge to be reconstructed is near the Eagle's Club.

Two bridges to complicate Turnpike traffic in June

Construction is set to begin in mid-June on rebuilding two bridges on the Oak Ridge Turnpike, which will alter traffic patterns considerably for commuters.

The State Highway Department has announced plans to rebuild the bridge east of the intersection of Jef-

ferson and the Turnpike; and the other near the Eagles' Club. Both jobs will be done simultaneously, and construction time is estimated to be four to six weeks.

To keep traffic problems at a minimum, the State engineers plan to keep at least two lanes open on a continuous basis on both bridges.

Signs, barricades and cones will be placed on the Turnpike, extending from Illinois to a point west of Jefferson, and a police patrol will be on the scene the first few days of construction to warn travelers of the hazards.

City engineers have stated that this particular time was chosen due to the decreased commuter traffic caused by vacationers and school vacations. They also stress that extra caution must be exercised during the construction period.

Employees using the Turnpike to and from work are advised to choose alternate routes (such as Robertsville Road or West Outer Drive) if possible, and, if not, to use extreme caution during the construction stages.

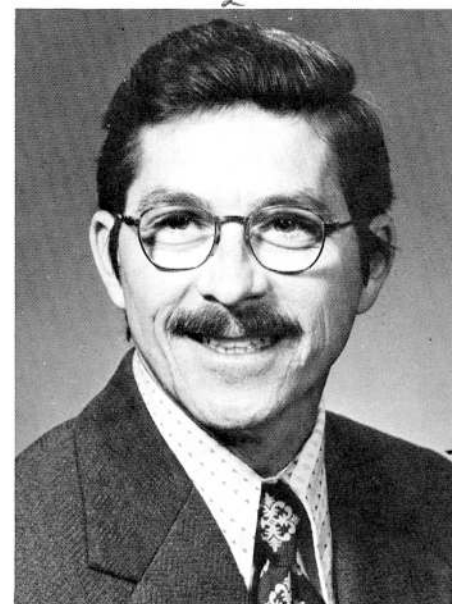
Shults appointed director of Analytical Chemistry

2908-73

Wilbur D. Shults has been appointed director of the Analytical Chemistry Division at Oak Ridge National Laboratory. His appointment was announced by Alexander Zucker, ORNL associate director for the physical sciences.

Shults, who has served as associate division director for the past 16 months, succeeds James C. White, recently appointed as technical services manager for Nuclear Division production facilities.

Shults will be responsible for programs in basic and applied research and analytical services which during the current fiscal year total approximately \$7 million. The division employs a staff of 160.



Wilbur D. Shults

His main research interests are in electroanalytical chemistry, instrumentation, chromatography, and spectroscopy. He also has served as coordinator of an ORNL program on Ecology and Analysis of Trace Contaminants supported by the National Science Foundation.

Active in ACS

Earlier this year, Shults was appointed to a three-year term on the editorial board of *Analytical Chemistry*, the leading journal in this field. He is secretary of the American Chemical Society's Analytical Chemistry Division fellowship committee and a past chairman of the analytical group of the society's East Tennessee section.

Currently, he is a member of two National Academy of Sciences — National Research Council panels, on chlorine and hydrochloric acid and on environmental quality indicators. He also serves on panels of the American Society for Testing and Materials.

Shults and his wife, Sureta, live at 1011 West Outer Drive, Oak Ridge. They have two daughters, Susan and Sheri, and a son, Stephen.

Varied functions

Program activities provide analytical support for the Laboratory's work in nuclear as well as non-nuclear energy development, including efforts in the reactor and engineering sciences, advanced energy systems, biomedical and environmental sciences, and basic physical research.

In addition to these ERDA-supported programs, the Analytical Chemistry Division also carries out research sponsored by the National Cancer Institute, National Science Foundation, and Environmental Protection Agency.

Held AEC fellowship

Shults received his B.A. and M.S. degrees from Emory University in 1950 and 1951, respectively, and the Ph.D. from Indiana University in 1966. He joined the ORNL Analytical Chemistry Division in 1951 as a junior chemist and held various research and management positions before being appointed assistant division director in 1972 and associate director in February 1975.

From 1955 to 1957 he served with the U.S. Army Chemical Corps. He held a U.S. Atomic Energy Commission special fellowship for doctoral study from 1962 to 1964.

division deaths

John Howard Brock, a senior laboratory technician in the Chemical Technology Division, Oak Ridge National Laboratory, died May 4 in the University of Tennessee Hospital.



Mr. Brock

Mr. Brock had been with the Nuclear Division since 1944. He is survived by his wife, Dora Hartman Brock, Guinn Road, Knoxville; two sons, Lonnie Brock and Melvin Brock; three brothers, Clyde Brock, Frank Brock and the Rev. R. V. Brock, two sisters, Mary Brock and Mrs. Carrie Cross; and grandchildren.

Funeral services were held May 6 in the Weaver Funeral Home chapel, followed by burial in Oak Ridge Memorial Park.

Eugene Eichler, a research staff member in the Chemistry Division, Oak Ridge National Laboratory, died June 3 at the University of Tennessee Memorial Hospital in Knoxville.



Mr. Eichler

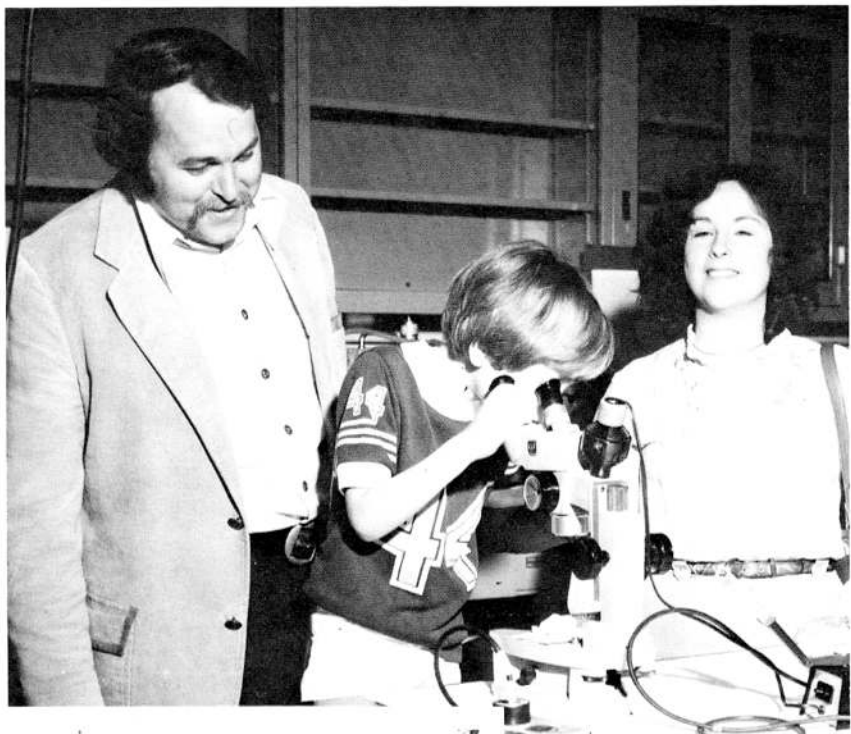
Mr. Eichler had been at ORNL since 1954. He was a member of the American Chemical Society and Sigma Xi, and in 1975 had been elected a Fellow of the American Physical Society. He is survived by his wife, Sonya Eichler, and three children, Miriam, Daniel and Margaret Eichler, all of 185 Outer Drive, Oak Ridge; two brothers, Maurice and Herschel Eichler, and four nieces and nephews.

Graveside services were held June 6 at Oak Ridge Memorial Park.



COMPLETE EDDY CURRENT COURSE — Technicians from the three Oak Ridge plants recently completed an in-depth course on eddy currents which included lectures on theory and application, as well as a study of eddy-current equipment. It was sponsored by Oak Ridge National Laboratory and the Oak Ridge Section of the American Society for Nondestructive Testing. The curriculum was steered by Cas V. Dodd, ORNL. In the front row, from left, are Jim Smith, ORNL, instructor; Don Kelley, ORGDP; Gerry Scott, Y-12; Richard Smith, ORGDP; John Coulter, Y-12; Clayton Olmstead, Y-12; Paul Schneider, Y-12; Eddie Nageotte, ORGDP; and Dodd. In the back row are Ron Adamski, ORGDP; Carl Bennett, Y-12; Jack Elkins, Y-12; Emmett Walker, Y-12; Ken Kesterson, Y-12; Walt Joest, former Y-12er, now with TVA; Lonnie Cochran, ORGDP; Tommy Roberts, Y-12; Royal Cline, Y-12; Harlan Wright, Y-12; Tony Cannon, ORGDP; Jim Hill, ORGDP; and Larry Austin, Y-12. The 48-hour course was held in late March and early April.

1221-76



ORNL Family Day '76

The skies were fair, the sun was warm, and Nuclear Division, ERDA and other contractor families showed up at the Oak Ridge National Laboratory's portals in a steady stream on "their day" — Family Day 1976. A total of 2,200 people registered at the Laboratory's X-10 site, and 1,697 were counted at the Y-12 area (including Biology Division).

As the surrounding photos show, both youngsters and adults seemed to enjoy the special displays and exhibits which were prepared by every ORNL division. Buses ran continuously to carry the weary-footed to every corner of the tour areas. And by the time the portals closed at 5 p.m., everyone had learned at least a little about what goes on inside a national laboratory.





TOUR ORNL FACILITIES — A group of 39 physicians and industrial hygienists from Union Carbide Corporation facilities toured the Oak Ridge National Laboratory last month following the week-long Union Carbide Corporation Industrial Hygienists' and Occupational Physicians' Conference in Gatlinburg. Accompanied by Dr. Thomas A. Lincoln, Dr. A. Seaton Garrett, Newell E. Bolton and Walter E. Porter of the ORNL staff, the group included its visit a stop at the Analytical Chemistry Division's Tobacco Smoke Program laboratories. Above, James R. Stokely (right) of the Smoke Program staff demonstrates an animal holder for the tobacco smoke inhalation exposure system to (from left) Dr. B. H. Avashia, South Charleston, W. Va.; Dr. Lincoln; Dr. Andy Lang, Puerto Rico; Dr. Tracy Spencer, South Charleston; and Dr. David H. Glenn, Texas City, Tex.

division deaths

Helen L. Zang, a secretary in the Biology Division, Oak Ridge National Laboratory, died May 9 in Oak Ridge Hospital.



Miss Zang

Miss Zang, who lived at 213 Butler Road, Oak Ridge, had been at ORNL nearly 30 years and was active in the ORNL Bowling League. A native of Calgary, Alberta, Canada, she had lived in Oak Ridge since

1946.

She is survived by two brothers, Karl and Charles Zang, and two sisters, Mrs. May Johnson and Miss Eleanor Zang.

Graveside services were held May 13 in California.

Stephen J. Adamaski, a mechanical engineer at the Y-12 Plant, died May 25 at a Knoxville hospital.

A native of Chicago, he studied drafting at a Nashville technical school and served in the U.S. Army during World War II, earning a purple heart and several other medals. He joined Union Carbide in 1953, after working with Palmer's Sheet Metal Company.



Mr. Adamaski

Survivors include his wife, Rebecca Duke Adamaski, 131 South Purdue Avenue, Oak Ridge; sons, Ronald (who works at the Oak Ridge Gaseous Diffusion Plant), Terry and Kendall; his father, Stanley Adamaski Sr.; and brothers, Walter and Stanley Adamaski Jr.

Funeral services were held at the Weatherford Mortuary chapel with the Rev. Robert Hofstetter and the Rev. Charles New officiating. Burial was in the Tennessee Valley Memorial Gardens.

Raymond C. Rapier, Y-12's Engineering and Scheduling Department, died May 27 at his Old Dutch Valley Road, Clinton, home. A native of Anderson County, he joined Union Carbide at the Oak Ridge Gaseous Diffusion Plant in 1954, later transferring to Y-12.



Mr. Rapier

He was a veteran of the U.S. Army, serving in the Pacific area during World War II. His survivors include his wife, Ruth Hackworth Rapier; daughters, Linda Behnke and Debbie Websters; sons, Raymond C. Rapier Jr. and Larry Rapier; his parents, Mr. and Mrs. Ben Rapier; sisters, Mrs. Minnie Adams and Mrs. Paul Parker; brothers, the Rev. W. L. Rapier, Andrew J. Rapier and Kenneth Jenkins; and three grandchildren.

Funeral services were held at the Holley-Gamble Funeral Home chapel with the Rev. James F. Jones and the Rev. H. P. Barrington officiating. Burial was in the Robbins Cemetery in Dutch Valley.

next issue . . .

The next issue will be dated June 24. The deadline is June 16.

Acute personnel need cited in OWI efforts

With the rate of activity in the Nuclear Division's Office of Waste Isolation accelerating rapidly, there is an acute need for personnel in various fields, according to Clayton D. Zerby, OWI Director.

"As most people know, the waste isolation program has a very high priority," Zerby explained. "Therefore we are quite anxious to have the Office of Waste Isolation staffed with qualified people as soon as possible."

The Office of Waste Isolation has been established with the responsibility for a national study of multiple geographic locations with differing geologic formations to determine the best possible sites for storage of high-level waste. In addition, the Office will be responsible for developing and placing into operation the federal repositories for terminal waste storage.

Positions listed

The following is a listing of some of the key positions in OWI which must be filled in the near future. Persons interested in these positions who are employees of the Nuclear Division, or who know of individuals outside the Division who might be interested in these positions, are encouraged to contact Lowell L. McCauley (ext. 3-7143):

Hydrology — Provide staff support on all hydrology topics for all formations including planning, monitoring and reviewing of regional hydrological framework surveys, in-hole testing programs, and special studies related to hydrologic problems.

Geophysics — Duties will include planning, monitoring and reviewing of geophysical, surveying field programs, well logging programs and seismicity/tectonics investigations.

Petroleum, Mining Engineering — Coordinate all drilling programs and drilling management contractors, provide liaison between OWI, Purchasing and drilling activities, and expedite and troubleshoot all drilling programs.

Geology — Direct the review of available information and characteristics of a specific formation; plan and direct the acquisition of remaining geological data needed for decisions on suitability of formation as potential repository.

Materials Engineering — Technical manager with a strong background in mechanical analysis; materials development engineering desirable.

Geochemistry, Physical Chemistry, Physics, Ceramics and Chemical Engineering — Conduct studies on the interactions of nuclear waste with all types of rock associated with disposal facilities. Problems involve nuclide migration, radiochemistry and radiation damage, chemical reactions, corrosion, brine migration, rock properties, design support and *in situ* analysis.

Mining and Mineral Engineering, Earth Scientist, Earth Physicist — Problems concerned with mechanical properties of rocks, design and analysis of *in situ* tests, code development and verification, and conceptual design support. Will provide information on current mining equipment, methods and techniques.

Mechanical, Chemical, Geological Engineering — Studies will involve reviewing current practices for sealing engineering projects and plugging oil and gas wells; development of suitable plugging material; development of methods to emplace a plug in an existing bore hole; design of field test experiments and the instrumentation to evaluate the tests.

Mechanical Engineering — Strong background required in specialized equipment design, development and procurement. Should also have experience with handling radioactive equipment.

Mechanical Engineering — Needs a strong background in environmental control and considerable experience with large air handling projects.

(Please turn to page eight)

Brown foreman in barrier group



R. G. Brown

Roy G. Brown is a new supervisor in Barrier Manufacturing at the Oak Ridge Gaseous Diffusion Plant.

A native of Caryville, he studied accounting with the International Correspondence School, and worked as an accountant with Fork Mountain Coal Company before joining Union Carbide more than 24 years ago.

Mrs. Brown is the former Wanda Lockett and the couple lives in Oliver Springs.

Davy promoted to planner-estimator



W. H. Davy Jr.

William H. Davy Jr. has been named a planner-estimator in the Fabrication Department of Oak Ridge National Laboratory's Plant and Equipment Division.

Davy joined the Laboratory staff in 1958 as a machinist helper and was selected for ORNL's apprenticeship program the same year. After completing his apprenticeship in 1961 he was promoted to machinist.

A native of Wisconsin, Davy is a graduate of Oak Ridge High School and has taken course work at Roane State Community College. He lives with his daughter and son at 111 Pratt Lane, Oak Ridge.

recreationotes

Softball leagues

Two dominate teams held end-of-May leads in the two Softball Leagues, as the ESD and Snakes hold a perfect record in the Atomic League and the Killer Bees and Magnetic Fielders hold the same advantage in the Nuclear League.

League standings follow:

Atomic League		
Team	W	L
ESD	3	0
Snakes	3	0
Gashouse Gang	4	1
Shifters	4	1
Artie's Army	3	1
Bruins	3	1
BMS-Bioradicals	2	1
Bio-Rejects	2	1
The Steelers	2	2
Ridger Runners	1	2
Ecology	1	2
Beta 2 Bunters	1	2
Avengers	1	2
Outlaws	1	3
Rednecks	0	4
Hotdogs	0	4
Mc's Pack	0	4

Nuclear League		
Team	W	L
Killer Bees	3	0
Magnetic Fielders	3	0
The Streakers	3	1
Knuckle Balls	2	1
Fes-Kids	2	1
Barrier Bombers	3	2
Thermos	2	2
Terodactyles	2	2
Knockers	1	2
Swingers	1	3
Odds & Ends	0	4
Ding-Bats	0	4

ORGDP golf

May golf winners at Wallace Hills saw D. C. Lannom one-over-par the course for a 73, to take honors in the ORGDP classic. H. Creswell placed second with a 74. Lloyd Kahler took handicap honors with a 75, followed by A. J. Thompson, 78.

Division two was grabbed by W. A. Davis, 80; and R. P. Summers and R. L. Green, with 84 each. R. E. Lampton took handicap lows with an 82; while Walt Goodwin placed second with 86.

Division three went to W. L. Goodwin, 87; and H. Lanauze and Seth Wheatley tied for seconds with 91 each. Handicap lows were awarded W. E. Hall, 91; and W. S. Lenihan, 93.

Y-12 golf

Charlie Baxter and T. E. Smith tied for honors at Dead Horse Lake, as Y-12ers took to the greens in May. Jim Vance placed second with a 77. Handicap laurels went to John Hamilton, 77; and Bill Briscoe, 79.

Division two lows were carded by Don Dowery, 80; and Carl Turner, 86. Roy Morrow was low in handicap tally with an 82; and E. W. Smith came in second with an 86.

Division three was scooped up by Avery Kendig, 88; and A. G. Bryant, 90; as Bob Foresman tallied 90 also. Handicap lows went to D. L. Fortune and Jerry Brown, 90 and 93 respectively.

Hi-power rifle league

Jack Huff, Y-12, won the fourth match of the Carbide High Power Rifle League with a 484 out of 500. Jack Mrochek, ORNL, was second with 464; and Arvin Quist, ORNL, was third with a 463. Other scores were: A. Abbatiello, ORGDP, 457; D. Kiplinger, ORNL, 456; W. I. Galyon, Y-12, 444; L. Weston, ORNL, 439; Hugo Bertini, ORNL, 432; R. Wiegand, ORGDP, 366; K. Dale, ORGDP, 304; and T. Burklow, ORNL, 198.

ORNL golf

Grady Cain parred the Whittle Springs golf course in late May to take the ORNL honors, as D. Kington and W. Martin tied for second place, each with a card of 75. Handicap winners were D. Simpsons, 75; and J. Wiggins, 77.

In division two it was E. Cox, 77, and W. Prater, 78. Handicap winners were E. Hensley, 77, E. Rawlings and R. Owens, 81.

Division three went to W. Cottrell, 82; and N. Morrell, 83. Handicap laurels were gleaned by M. Carter, 84; and W. Cotter, 89.

Warm weather energy-saver

Deflect daytime sun with vertical louvers or awnings on windows, or drawn draperies and shades in sunny windows. Keep windows and outside doors closed during the hottest hours of the day.

Beginning Swimming Instruction — Paducah



EMPLOYEE'S NAME _____

Plant Address _____ Bldg. PAX Phone _____

Home Address _____ Home Phone _____

List Student(s) name and age: _____

Instructions will be from 9 a.m. to 10:30 a.m. July 24, 31, August 7 & 14. Due to anticipated heavy enrollment, only the first 190 employees, spouses, and/or children will be entered in the instructions.

Groups available are:

- 1) adult beginners
- 2) teenager beginners
- 3) pre-teenager beginners
 - 11-12 years
 - 9-10 years
 - 6-7 & 8 years

Mail to: G. K. Bryant
Recreation Department
Union Carbide Corp.
P.O. Box 1410
Paducah, Ky. 42001

FIRST COME — FIRST SERVED!



HONORED BY ACS — Margaret and Ray Stewart, ORGDP, center, received a plaque from the American Cancer Society - Roane County Chapter recently for their efforts in the successful staging of the second annual talent show at Roane State College. At left is Sam Woodfin, also at ORGDP, president of the local chapter, and at right is John Arendt, vice president of the East Region of the ACS. Arendt is manager of the Uranium Resources Evaluation Project for the Nuclear Division. Some 2,400 people attended the show, with all proceeds going to the cancer fund.

Summer recreation schedule

Monday	Softball Leagues, Clark Center Recreation Park, 6-10 p.m. Table Tennis League, Norwood Junior High School, 7-9:30 p.m. Golf League, Southwest Point (Kingston), 5:30 p.m.
Tuesday	Pistol League, Oak Ridge Sportsmen's Association, 6:30 p.m. Golf League, Deadhorse Lake (I-40 at Highway 162), 5:30 p.m. Camera Club, Cheyenne Hall (Oak Ridge), 7:30 p.m. second Tuesday of each month Softball League, Clark Center Recreation Park, 6-10 p.m.
Wednesday	Rescheduling day for rained-out softball games when necessary, 6 p.m.
Thursday	Badminton (informal), Highland View School (Oak Ridge), 8 p.m. Table tennis (informal), Highland View School, 8 p.m. Golf League, South Hills (Oak Ridge), 5:30 p.m. Softball Leagues, Clark Center Recreation Park, 6 p.m.
Friday	Family Bowling League, Tri-County Lanes (Norwood), 5:45 p.m.
Saturday	Golf tournaments as announced - monthly at area courses.
Sunday	Badminton (informal), Highland View School, 6:30 p.m. Table tennis (informal), Highland View School, 6:30 p.m.

Clark Center Recreation Park will be open through October 1, from 5 a.m. until 11 p.m. daily.

The Recreation Office has travel and vacation literature for employees, as well as membership and discount coupons for Disney World, Six Flags over Georgia and Opryland. For more information, call 3-5833.

Tee-Off Time Application for June 26

(Check Appropriate Plant)

- ☐ ORGDP — Southwest Point
☐ Y-12 — Whittle Springs
☐ ORNL — YMCA Center



LEADER _____

Phone _____ Bldg. _____

Time Preferred _____

COMPLETE AND RETURN TO YOUR RECREATION OFFICE.

Entries must be received prior to drawing on June 23, 2 p.m.

ORGDP — Building K-1001 — C Wing — MS 122

Y-12 — Building 9711-5 ORNL — Building 2518

Tee-off times for all tournaments will be drawn on Wednesdays prior to each Saturday's tournament. Golfers are responsible for reserving their own carts by contacting the pro shop following drawing for tee-off times.



Part II

Influenza: the last unconquered plague

by T. A. Lincoln, M.D.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)

In President Ford's message to Congress on March 25, he expressed grave concern about a possible epidemic of swine influenza next winter. A natural reaction by many people was, "What has flu in pigs got to do with human flu?"

The complete answer to that question is still not known, but enough information is available to make public health authorities extremely uneasy. To avoid a dangerous epidemic of influenza, immunization of every "man, woman and child" in the United States has been proposed.

A new variant of the influenza A virus was isolated from Army recruits at Fort Dix, N.J., in February of this year. Virologists believe this virus to be remarkably similar to the one which caused the disastrous 1918-1919 worldwide epidemic.

The World War I epidemic was the first one caused by the swine variant. The world had almost no immunity to this new variant, and therefore the infection spread in an explosive fashion, killing 20 million people. Now, 58 years later, many of the people who survived the infection and developed immunity have died off due to old age. If another epidemic occurs, few people will have any protection.

Human origin

Dr. Edwin Kilbourne of the Mount Sinai School of Medicine in New York, a world-recognized expert on influenza viruses, believes that most, or possibly all, influenza viruses originated in man. Domesticated animals, such as swine and horses, have been infected by humans. The second wave of the worldwide epidemic in the fall of 1918 may have been so virulent because a human influenza A virus had adapted itself in swine, changed its form slightly and reappeared as a much more dangerous variant.

Kilbourne and others have demonstrated that recombination between human and horse influenza viruses does occur. It has been suggested that the graveyard of old human influenza viruses is the barnyard. This transfer of infection to domestic animals may account for the persistence of influenza, since it is known to be a fragile virus.

Since influenza A is extremely contagious during an epidemic, a large portion of the population gets infected and subsequently develops immunity. Although any new variant which develops spreads rapidly in an epidemic-like fashion, there are always many people who do not get sick.

Those who don't get sick in the initial epidemic may come down with influenza later in sporadic cases which occur almost any time of the year. Many cases of unrecognized subclinical infection also occur. Sooner or later a large portion of the population develops immunity. Survival of the virus beyond four or five years depends on a mutation which changes its antigenic structure enough so old immune antibodies in the blood of new victims won't recognize it and destroy it.

Change hypothesis

Many other infectious disease viruses survive in highly immune populations even though they don't undergo change. Examples are measles, mumps and chicken pox. Influenza A seems almost unique because its survival requires a large number of susceptibles in the population. The big question then is, "Where does the antigenic change occur?"

One hypothesis that has some experimental support is recombination of the human virus with swine influenza viruses. Maybe a thousand years ago, the human virus became adapted to swine and caused them to develop influenza. (Swine influenza was first described in 1918, but chances are a mild form had existed long before.) Later, other human variants also adapted to the swine but then combined with the old virus to form a brand new swine variant. It somehow then got reintroduced into humans who had no immunity to it. It is feared that something like this may be about to happen again.

Just how important this recombination is for the survival of the virus is not clear, but the sudden appearance of a radically new virus suggests this possibility. There appears to be a modest change about every two to three years and a fairly major change about every 11 years.

The really hazardous change occurs about every 60-70 years. Actually, it may be a recycling as much as an appearance of a totally new variant. It has been 58 years since the 1918 epidemic, so we are due for the reappearance of the dangerous swine influenza strain of 1918.

Vaccine use recommended

To reassure people who raise pigs, the human influenza A infects pigs fairly easily but the reverse seldom occurs. It can be accomplished experimentally, so we know it is possible, but apparently it only rarely occurs naturally. After it makes the jump, however, it spreads to other humans quite easily.



SAFE SUPERVISORS — Eighteen of the 19 Plant and Equipment foremen who completed the "Supervising for Safety" course are shown after receiving their certificates. Pictured, from left, are: (bottom row) John Auxier, director of ORNL's Health Physics Division, who spoke to the group; Bobby Freeman, Rex Moody, John Shuey, instructor; Don Wolfenbarger, Joe Rhoades, Jack Keeney and Ken Kirksey; (middle row) Coy Ward, Otis Latham, Bruce Mynatt, Ken Wilkerson, Bill Fair, Gwen Lockett, Larry Reeves and Harry E. Seagren, Plant and Equipment Division superintendent; and (top row) Billy Scarborough, Jim Gheen, Joe Arwood, Ralph Clark and Jim Bentley. The 19th participant, George Long, was on vacation the day of the presentations.

Foremen finish safety course

Nineteen foremen in the Plant and Equipment Division, Oak Ridge National Laboratory, completed a 21-hour course on "Supervising for Safety" last month.

The course, taught by John Shuey of ORNL's Health Physics and Safety, was developed by the National Safety Council to teach foremen how to develop the proper attitude toward safety in the people they supervise and to recognize unsafe conditions and practices.

With the presentation of the "Supervising for Safety" certificates, 90 foremen in the Plant and Equipment Division have completed either this course or a similar one (the American Management Association's "Safety for the Supervisor.")

Fabrication groups recognized

Earlier in the month, Plant and Equipment Supervisor Harry E. Seagren presented 1975 Superintendent's Safe Worker Award

plaques to the area and special shop group and the main machine shops group, both in the Fabrication Department. Both awards were for "excellent" performance, which means each group was charged with only one recordable injury in 1975.

It was the second Safe Worker Award for the main machine shops group, which also received the award in 1974.

Three categories

Plant and Equipment Division established the Superintendent's Safe Worker Award in 1973 (when the Nuclear Division Safety Award Plan was changed to take into account only disabling injuries) in order to give recognition to groups avoiding serious injuries. Award plaques may be given for three categories: Outstanding, for no recordable injuries during the calendar year; Excellent; and Good, for only two recordable injuries.

Smith daughter top nursing grad



Jill Fox

Jill Elaine Fox, a senior student at St. Mary's Memorial Hospital School of Nursing, Knoxville, received the Sister Mary Annunciata award recently in honors day festivities. The award is presented each year to the outstanding student nurse, and is the highest senior award in the school.

Jill is the daughter of Mr. and Mrs. Gaines Smith, Powell. Her father is in Y-12's Dimensional Inspection Department.

OWI personnel

Civil, Mining Engineering — Strong background required in tunneling, drilling, foundations, site selections and some hydrology experience.

Civil, Mechanical, Construction Engineering — Analytical background required in heat transfer, earthquake and tornado design analysis.

Construction, Mechanical, Civil Engineering — Good construction engineering background required.

Nuclear, Chemical Engineering, Engineering Physics — Will direct planning function. Should understand fuel cycle and be familiar with all facets of national nuclear energy program.

Planner — To assist in planning function with responsibility for schedules and project evaluation reports.

Planner — To assist in planning function with responsibility for progress reports and ERDA interface.

Engineer — To direct general systems studies including canister envelope studies, transportation studies, economic studies, etc.

(Continued from page five)

Nuclear Engineering, Chemical Engineering Physics — To manage or coordinate all activities leading to successful licensing of all federal repositories; strong experience in environmental studies and requirements.

Nuclear Chemical Engineering, Physics — Assignments will include coordination of EIS preparation and coordination of safety reports preparation.

Accounting, Business Administration — To assist the financial control manager in maintaining commitment and cost information on contracts.

Engineering — Experience in contract purchasing; must be familiar with Nuclear Division and ERDA requirements; will be interface between technical specialist, purchasing and outside contractors.

Chemistry, Physics, Geology — To assist in the generation of material which will effectively communicate program information.

Savings Plan-Personal Investment Account

Recent unit values:

	Fixed Income Fund	UCC Stock	Equity Investment Fund
August 73	10.0000	34.7688	10.0000
December 73	10.2444	31.8170	9.3602
December 74	11.0438	40.3009	6.4354
December 75	11.9880	58.7886	7.8231
January 76	12.0752	67.6530	8.5697
February 76	12.1619	72.8087	8.3162
March 76	12.2480	73.8691	8.6006
April 76	12.3354	70.6876	8.4018

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 8.85% for 1976. Union Carbide stock values are the average cost of stock purchases during the month plus brokerage charges. Equity Investment Fund unit values represent the month-end market value of securities held by the Fund. Dividing the total value by the number of units in the fund establishes the month's unit values — and the price at which new units are added that month.

retirements



Blay

Butler

Kidwell

Tallant

Three Y-12 employees retired recently, marking long service with Union Carbide.

Allen J. Blay, H-2 and F-Area shops, joined Union Carbide in 1953. He lives at Route 2, Dogwood Road, Powell.

Cecil C. Butler, Fire Department, has more than 32 years company service. He lives at Route 2, Oliver Springs.

Frederick A. Tallant Jr., A Wing Shop, joined Union Carbide in 1951. He retires to his 120 Wilson Street, Clinton, home.

John D. Kidwell retired at the end of May from the Oak Ridge Gaseous Diffusion Plant's Converter Shop, ending almost 31 years company service. He lives at Route 2, Clinton.

Used equipment, vehicles on sale

A surplus sale of used government-owned office equipment and vehicles is in progress. Inspection of the material may be made at the Sales Office, Building K-722, located off State Route 58, in the powerhouse area at the Oak Ridge Gaseous Diffusion Plant.

Inspection may be made from 8:10 a.m. to 4 p.m. through June 22, except Sundays. The sale will begin at 9 a.m., June 23.

Additional information may be obtained from D. R. McCammon, extension 3-4601.

anniversaries

PADUCAH

25 YEARS

James E. Alderdice, John P. Schneider, Dan C. Garrott, Jack A. Freeman, Fred J. Allen, Clayton G. Pratt, William M. Switzer, M. B. "Beth" Devillez, T. W. "Bill" Boucher, James C. Benedict, Clarence O. Hays, Ray J. Dawes, William A. Dowell, Jesse B. Barron Jr., Nolan W. Russell, Joe R. Stevens, Robert T. Warmack, Leo F. Fields, Charles E. Brown Jr. and John W. Hausman.

20 YEARS

David H. Kaufman, E. Inez Stiner, Joe D. Wiggins and Frances L. Maxberry.

Y-12 PLANT

30 YEARS

Clyde E. Nance, General Shops; and James D. Robertson Jr., Product Information Center.

25 YEARS

Hermon L. Mitchell, George C. Meredith, Robert L. Hopson, Garnett W. Johnson, James C. McKinney, William L. Harper, Stanley R. West, Beryl K. Calfree, Augustus E. Perry, Anderson Halcomb, Wiley B. Redmon, Clyde C. Jones, Paul L. Patrick, Paul W. Cofer Jr., Vernie A. Mattox, Warren G. Ratledge, Marvin W. Honeycutt, Lawrence E. Redmon, Edgar H. Erickson, Ralph H. Kent and Colleen Shotts.

20 YEARS

Paul E. Reagan, Elihu H. Upton, Reed C. Wheelock, Wilford L. Hunter and George W. Wilkerson.

ORGDP

30 YEARS

Lorene Friar, Employment Department; Andrew D. Hill Sr., Technical Evaluation Department; and Wallace L. White, Chemical Operations Administration.

25 YEARS

Gerald H. Bellamy, George T. McMahon, Earment W. Bean, Jack B. Judd, Olin H. Howard, Walter E. Hill,

William G. Sterling, Robin E. Cable and L. A. "Tony" Dean.

20 YEARS

Ima J. Mooney, Bobby L. Carter and Robert K. Johnson.

GENERAL STAFF

30 YEARS

Verner E. Anderson, ORNL Computing Applications; M. M. "Billie" Ragan, General Accounting Division; and Everett B. Edwards, Purchasing Division.

25 YEARS

Nevil W. Gatewood, Ruby M. O'Kain, Trula S. Howerton, Harvey R. Kitchin Jr., Carrie S. King and Lowell L. McCauley.

20 YEARS

Benny L. Crass.

ORNL

30 YEARS

Homer C. Thompson, Chemistry Division; James T. Howe, Solid State Division; Louis A. Eckert, ORNL Engineering; William B. Anderson, Finance and Materials Division, and John B. Ruch, Chemical Technology Division.

25 YEARS

James N. Robinson, Hallie R. Nidiffer, Jack L. Bailey, Delmer L. Manning, Charles M. Fitzpatrick, William A. Duggins, Donald Kiplinger, Harold C. Schweinler, Horace A. Friedman and Roy P. Norris Jr.

20 YEARS

James E. Attrill, Philip L. Rittenhouse, Cleatus W. Stamey, Paul E. Stafford, Paden V. Stallo, Clyde B. Fulmer and Conrad V. Chester.

patents granted

To George R. Peterson, Y-12 Plant, for "Brazing Graphite to Graphite."

Edward S. Bettis and Harry L. Watts, both of ORNL, for "High Current Capacity Electrical Connector."



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